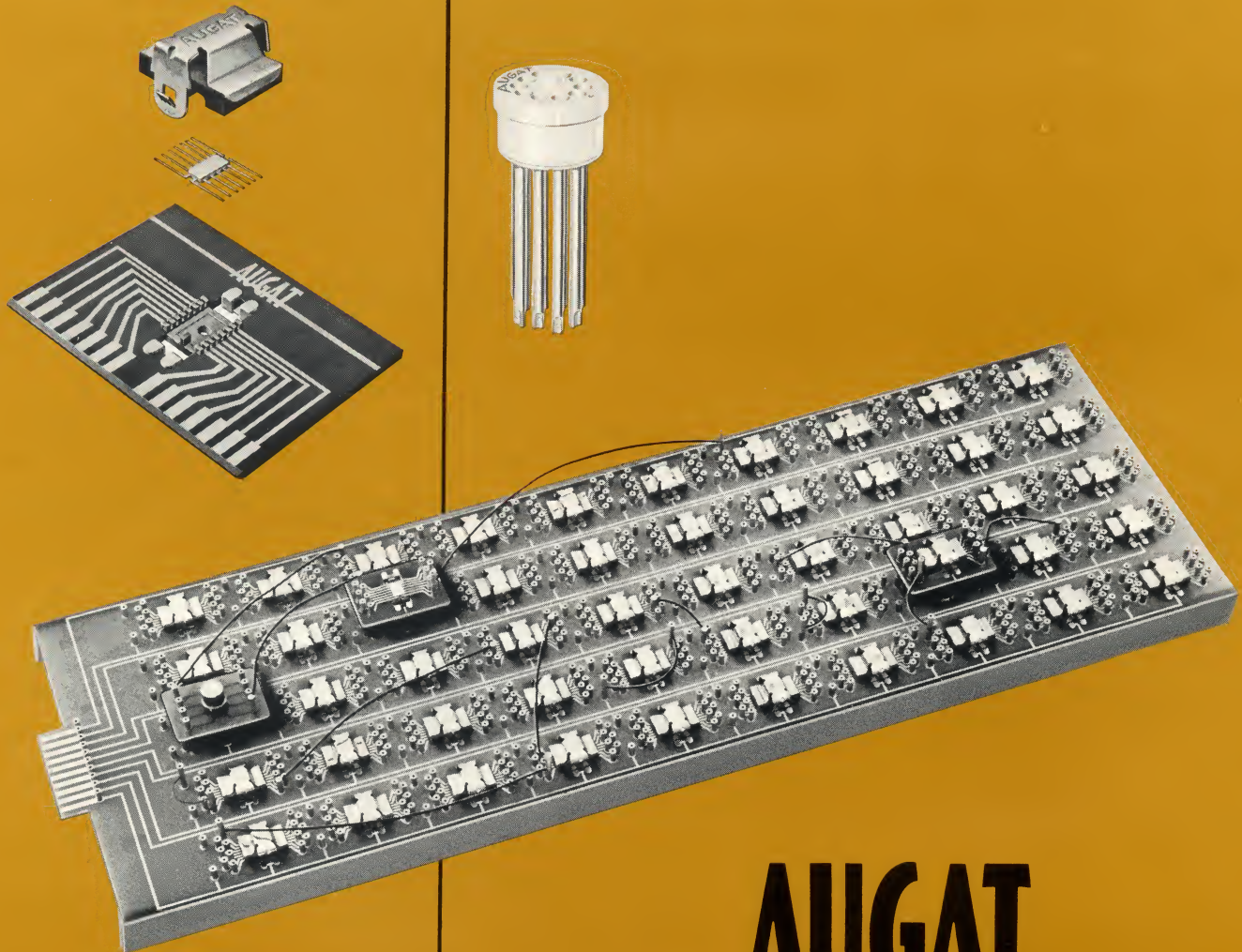


# INTEGRATED CIRCUIT SOCKETS *AND ACCESSORIES*



TESTING  
BREADBOARDING  
PACKAGING



# AUGAT

INC.

33 PERRY AVENUE, ATTLEBORO, MASSACHUSETTS

ELECTRONIC COMPONENTS AND HARDWARE

# TEST SOCKETS for integrated circuits and transistors



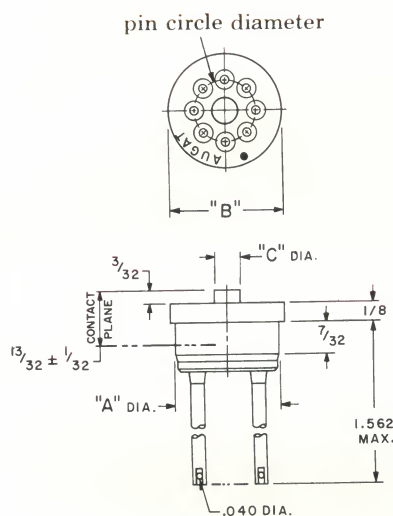
- chamfered lead holes facilitate insertion
- low contact resistance after 50,000 insertions
- accommodates lead lengths 1/2 inch minimum and diameters of .015 to .032
- fast "push-fit" mounting assures low installation cost
- raised boss prevents sharp lead bending and facilitates easy component removal
- contact reliability achieved through smooth, wiping leaf contact
- rear guide sleeves prevent lead shorting

Temperature Range — 65° to 125°C

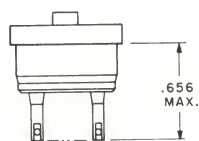
## PART NUMBERS

PART NO.	FIG. NO.	NO. OF CONTACTS	PIN CIRCLE DIA.	"A" DIA.	"B" DIA.	"C" DIA.	CONTACT LAYOUT	RECM. MTG. HOLE	WEIGHT (APPROX.)
8092-1G1	1	3	.200	.445	1/2	.070		.437*	.009 lb.
8092-1G8	2								
8092-1G2	1	4	.200	.445	1/2	.070		.437*	.010 lb.
8092-1G9	2								
8092-1G3	1	6	.312	.693	3/4	.170		.687*	.021 lb.
8092-1G10	2								
8092-1G4	1	6	.400	.695	3/4	.170		.687*	.021 lb.
8092-1G11	2								
8092-1G5	1	8	.400	.695	3/4	.170		.687*	.023 lb.
8092-1G12	2								
8092-1G6	1	10	.420	.697	3/4	.170		.687*	.024 lb.
8092-1G13	2								
8092-1G7	1	12	.510	.759	1 1/8	.170		.750*	.029 lb.
8092-1G14	2								

\*Tolerance  $\pm .001$  — break leading edge with .015 x 82° countersink.



**FIG. 1**  
Accommodates lead lengths up to 1 1/2"



**FIG. 2**  
Accommodates lead lengths up to 1 1/8"  
Otherwise same as fig. 1

## MATERIALS (8092, 8058 and 8101 SERIES)

INSULATOR — Teflon, Type TFE per MIL-P-19468

CONTACT SLEEVE — Brass, gold plated .00003 thick per MIL-G-45204, type II, over silver plate .0002 thick min. per QQ-S-365

CONTACT — Beryllium copper, gold plated .00003 thick per MIL-G-45204, type II, over silver plate .0002 thick min. per QQ-S-365

## TEST DATA

Test	8058 and 8101 SERIES	8092 SERIES
Current rating	1 amp	2 amps
Contact resistance	.009 ohm max.	.015 ohm max. (50,000 insertions)
Voltage breakdown (sea level)		
Contact to chassis	3000 volts RMS min.	7000 volts RMS min.
Contact to contact	1000 volts RMS min.	1400 volts RMS min.
Voltage breakdown (70,000 ft.)		
Contact to chassis	500 volts RMS min.	
Contact to contact	300 volts RMS min.	
Capacitance (@ 1 KC) per MIL-STD-202, method 305		
Contact to chassis	1.0 pfd. max.	1.5 pfd. max.
Contact to contact	.75 pfd. max.	1.7 pfd. max.



# 8058 SERIES SOCKETS for TO-5 case size integrated circuits

(Closed entry contacts)

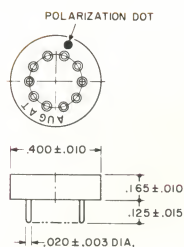
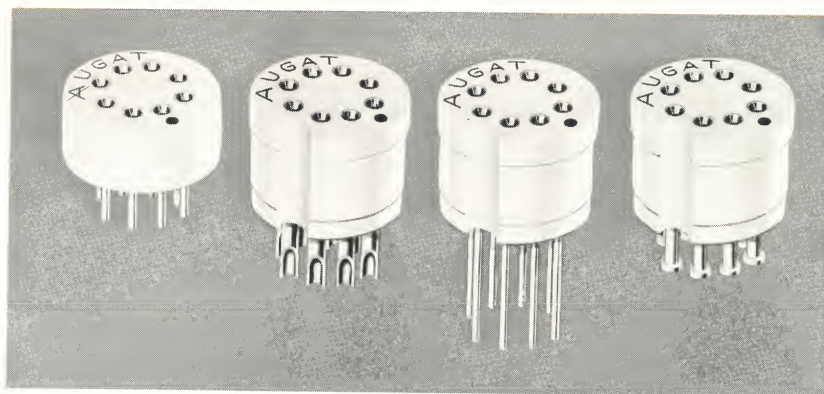


FIG. 1

Cut component leads .155/.125



pat. pend.

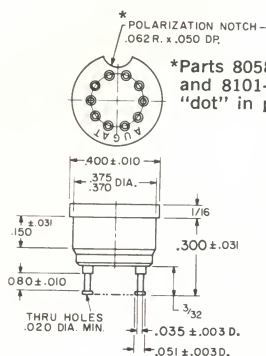


FIG. 2

Cut component leads  $\frac{3}{16} \pm \frac{1}{32}$  min.

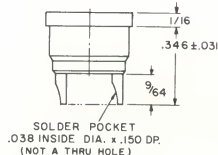


FIG. 3

Cut component leads  $\frac{3}{16} \pm \frac{1}{32}$

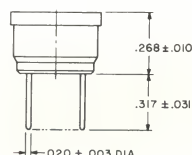


FIG. 4

Cut component leads  $\frac{3}{16} \pm \frac{1}{32}$

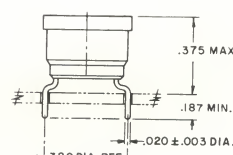


FIG. 5

Cut component leads  $\frac{3}{16} \pm \frac{1}{32}$

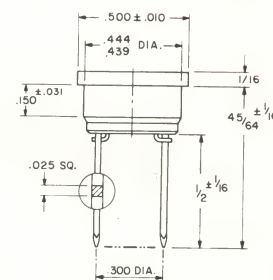


FIG. 6

Cut component leads  $\frac{3}{16} \pm \frac{1}{32}$   
Recommended mounting hole —  
.437 ± .001  
(Break leading edge with  
.015 x 82° countersink)

(Fig. 2 and 3) Recommended mounting hole — .366/.369  
(Break leading edge with .015 x 82° countersink)

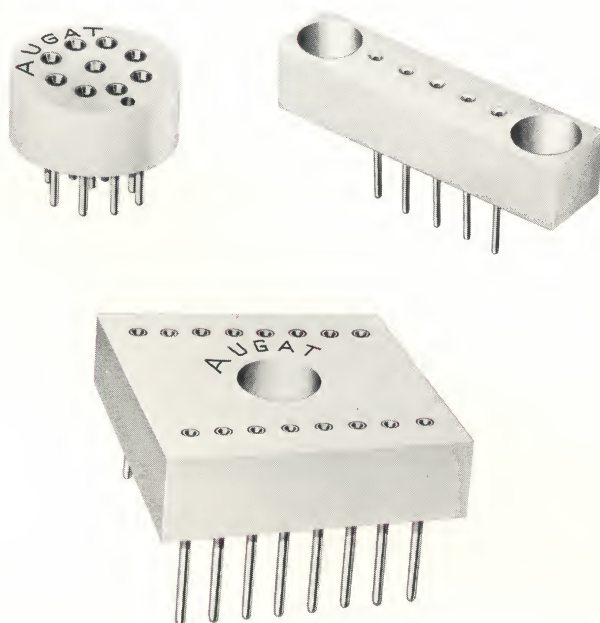
All socket assemblies accept  
lead diameters .016 to .019

refer to page 2 for Materials and Test Data

For information on standard transistor sockets write for Data Sheet 263

## CUSTOM SOCKETS

designed to your specifications



### PART NUMBERS

Part Number	Fig. No.	Contact Terminal	No. of Contacts	Pin Circle
8058-1G48	1	Printed circuit	6	.200 dia.
8058-1G44	2	Turret		
8058-1G43	3	Solder pocket		
8058-1G42	4	Printed circuit		
8058-1G49	1	Printed circuit	8	.200 dia.
8058-1G37	2	Turret		
8058-1G19	3	Solder pocket		
8058-1G32	4	Printed circuit		
8101-1G1	6	Wire-wrap	8	.230 dia.
8058-1G50	1	Printed circuit		
8058-1G47	2	Turret		
8058-1G46	3	Solder pocket		
8058-1G45	4	Printed circuit	10	.230 dia.
8058-1G34	1	Printed circuit		
8058-1G38	2	Turret		
8058-1G22	3	Solder pocket		
8058-1G31	4	Printed circuit	12	.280 dia.
8058-24G1	5	Printed circuit		
8058-1G51	1	Printed circuit		
8058-1G41	2	Turret		
8058-1G28	3	Solder pocket	12	.280 dia.
8058-1G20	5	Printed circuit		

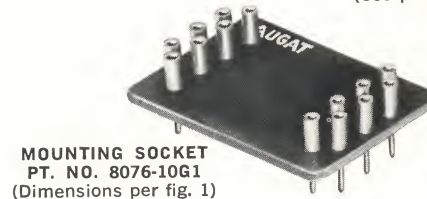
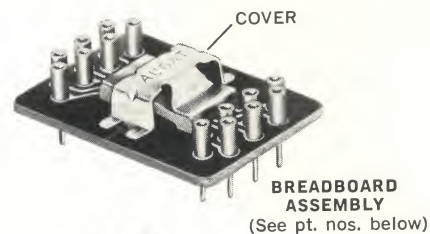
Note: All contacts are equally spaced



# BREADBOARD SOCKETS for integrated circuit flat packs

## features of the 8089 and 8076 SERIES

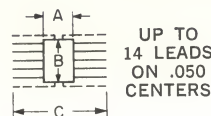
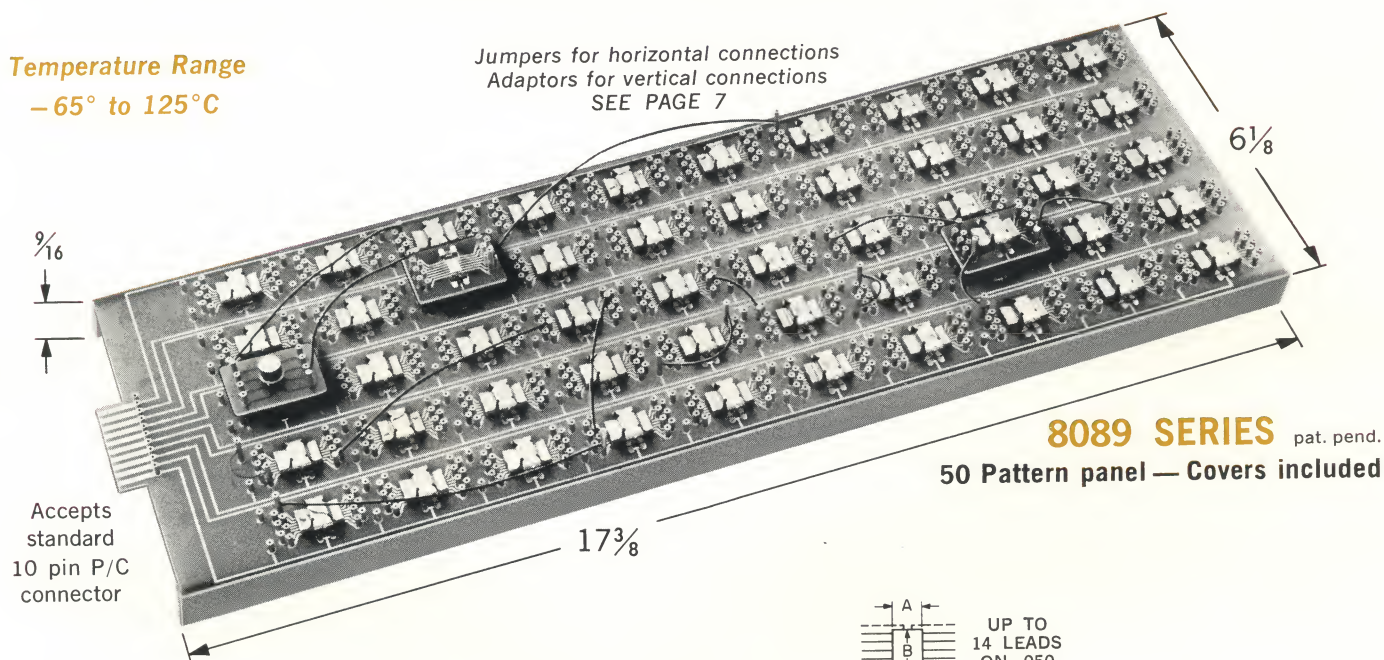
- 8089 SERIES used for life testing and breadboarding — accommodates up to 50 flat pack units
- 8076 (and 8095) SERIES are single pattern breadboard units that can be used individually or stacked in conjunction with the 8089 (or 8100) SERIES
- Unique snap-action cover (used on both series) insures positive pressure contact between integrated circuit leads and printed board without soldering or welding
- Bus bars provided on 8089 SERIES with two contacts adjacent to each pattern for common power and ground
- Unlimited interconnections can be made on either side of board through the use of jumper assemblies
- Complete flexibility and fast change of circuitry achieved with vertical contact adaptors and horizontal jumpers, both incorporating machined, closed-entry, beryllium copper contacts
- Mounting socket 8076-10G1 used as a platform for mounting other components or as a base socket — accepts pin or lead diameters .020 to .032



8076 SERIES pat. pend.

Temperature Range  
—65° to 125°C

Jumpers for horizontal connections  
Adaptors for vertical connections  
SEE PAGE 7



8076 SERIES — FIG. 1

Part No.	A	B	C
8076-1G3	1/8	1/4	
*8076-1G4	.180 Max.	1/4	
8076-1G7	1/4	1/4	.500 Min.
*8076-1G8	1/4	3/8	.750 Max.
8076-32G1	1/8	1/4	.455 Min.
*8076-32G2	1/8	1/4	.750 Max.
8076-30G1	1/8	1/4	.285 Min.
*8076-30G2	1/8	1/4	.750 Max.

\*Furnished with solder holes — see FIG. 1

8089 SERIES  
50 Pattern Panel — Covers Included

Part No.	A	B	C
†8089-1G7R	1/8	1/4	.500 Min.
	.180 Max.	1/4	.750 Max.
†8089-1G9R	1/4	3/8	
†8089-1G6R	1/8	1/4	.455 Min.
			.750 Max.
†8089-1G8R	1/8	1/4	.285 Min.
			.750 Max.

†Extractor tool included

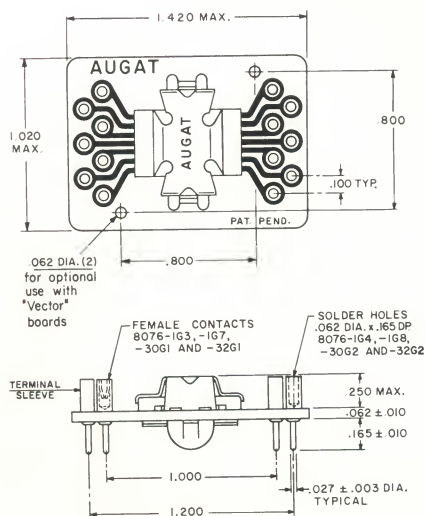


FIG. 1 8076 SERIES

Board separator key — Part no. 8076-18P1  
(facilitates separation of male and female contacts between stacked boards)

†Cover extractor tool — Part no. 8075-20G1  
(facilitates cover removal from top-side)

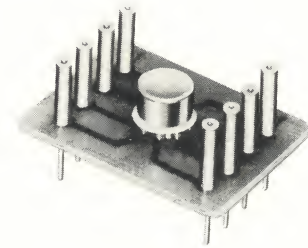
refer to page 8 for Materials and Test Data



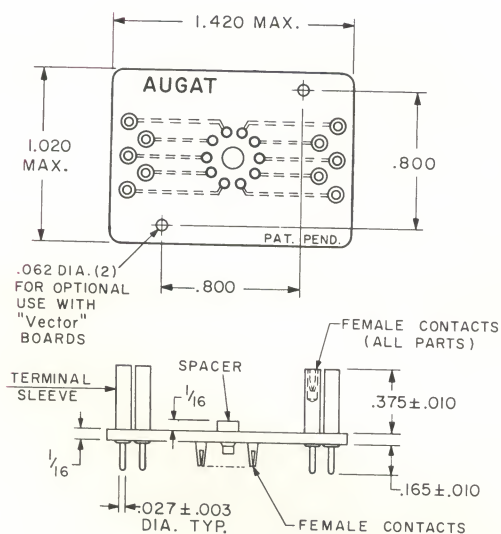
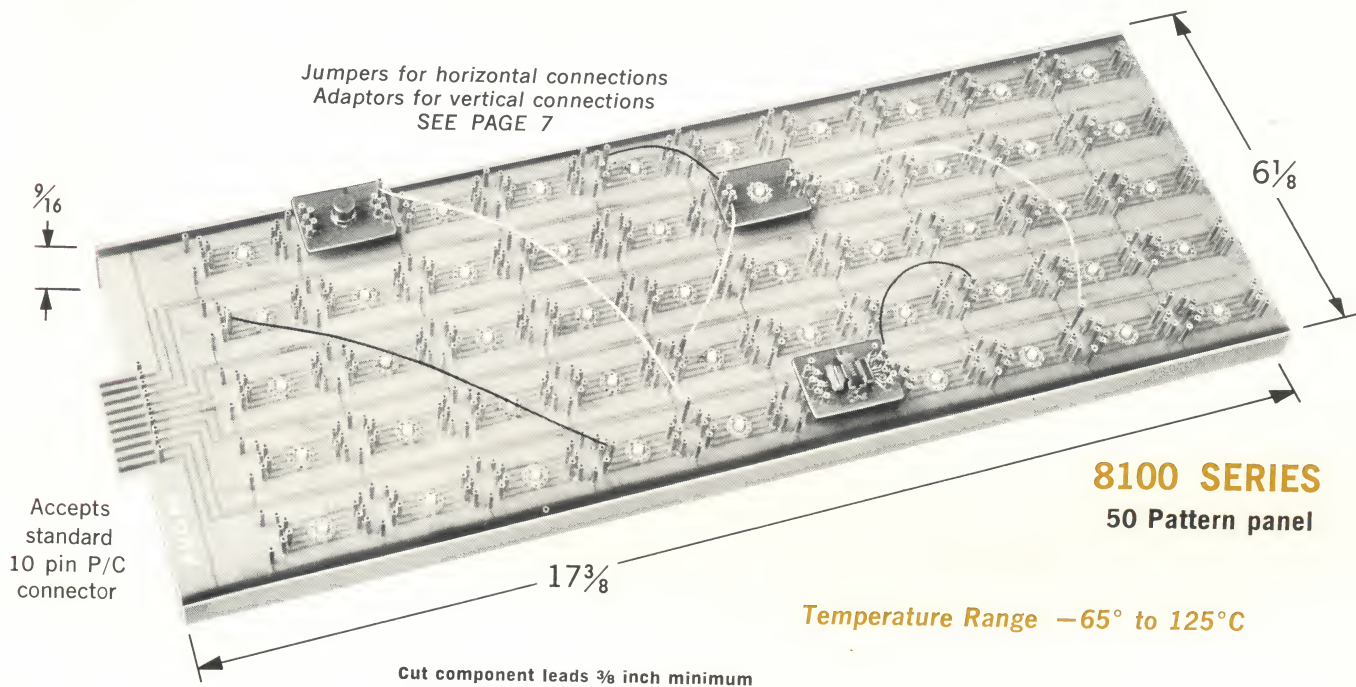
# BREADBOARD SOCKETS for TO-5 case size integrated circuits

## features of the 8100 and 8095 SERIES

- 8100 SERIES used for life testing and breadboarding — accommodates up to 50 TO-5 case size units
- 8095 (and 8076) SERIES are single pattern breadboard units that can be used individually or stacked in conjunction with the 8100 (or 8089) SERIES
- Bus bars provided on 8100 SERIES with two contacts adjacent to each pattern for common power and ground
- Unlimited interconnections can be made on either side of board through the use of jumper assemblies
- Complete flexibility and fast change of circuitry achieved with vertical contact adaptors and horizontal jumpers, both incorporating machined, closed-entry, beryllium copper contacts
- Mounting socket 8076-10G1 used as a platform for mounting other components or as a base socket — accepts pin or lead diameters .020 to .032



**8095 SERIES**  
**BREADBOARD ASSEMBLY**  
(See part numbers below)



**8095 SERIES**

## PART NUMBERS

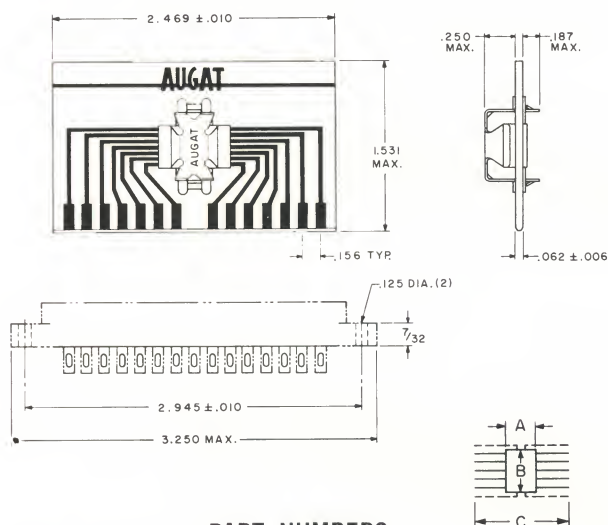
Part Number	No. of Contacts	Pin Circle Dia.	Contact Pattern
*8100-1G2R	6	.250	
*8095-1G2			
8100-1G3R	8	.250	
8095-1G3			
8100-1G4R	10	.300	
8095-1G4			
8100-1G5R	12	.360	
8095-1G5			

\*Also may be used for RO-52 outline

refer to page 8 for Materials and Test Data

# 8075 SERIES TEST SOCKETS for integrated circuit flat packs

The 8075 SERIES test socket features a molded insert with barriers for lead separation and fast loading, which is an integral part of a glass epoxy printed circuit board and in turn may be plugged into a standard fifteen-pin printed circuit connector for test purposes. Unique snap-action cover design insures positive contact, low contact resistance, firm retention of package and removal of Flat Pack without lead damage. Accepts any size package up to  $\frac{3}{8}$ " x  $\frac{3}{8}$ " and up to 14 leads on .050" spacing.

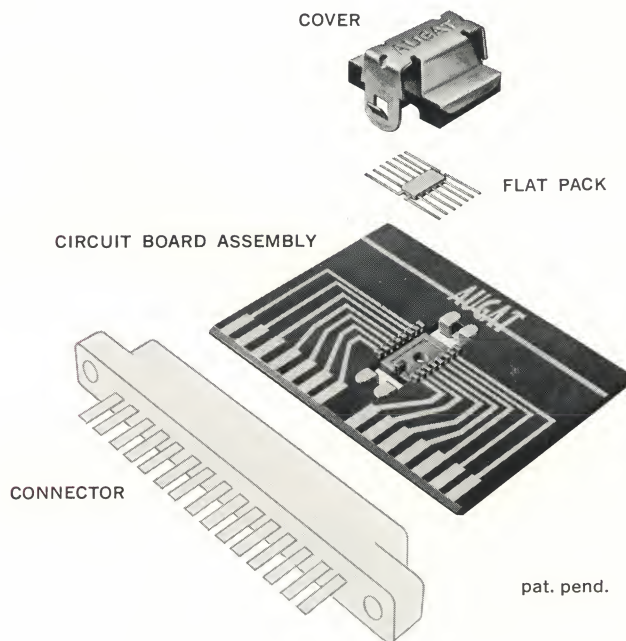


PART NUMBERS

With Connector	Without Connector	A	B	C
8075-1G2	8075-1G1	$\frac{1}{8}$ .180 Max. $\frac{1}{4}$	$\frac{1}{4}$ $\frac{1}{4}$ $\frac{1}{4}$	.500 Min. 1.000 Max.
8075-1G4	8075-1G3	$\frac{1}{4}$	$\frac{3}{8}$	
8075-17G1	8075-17G2	$\frac{1}{8}$	$\frac{1}{4}$	.455 Min. 1.000 Max.
8075-31G2	8075-31G1	$\frac{1}{8}$	$\frac{1}{4}$	.285 Min. 1.000 Max.
8075-24G2	8075-24G1	$\frac{3}{8}$	$\frac{3}{8}$	.656 Min. 1.000 Max.

Connector only — part no. 8075-8P1

Cover extractor tool — Part no. 8075-20G1  
(facilitates cover removal from top-side)



Temperature Range  $-65^{\circ}$  to  $125^{\circ}\text{C}$

## MATERIALS

PRINTED CIRCUIT BOARD —  $\frac{1}{16}$  thick glass epoxy, NEMA grade G-11, copper circuitry, gold over nickel plated

LEAD SEPARATOR — Diallyl phthalate

COVER — Spring temper stainless steel

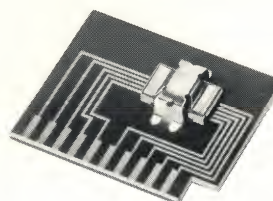
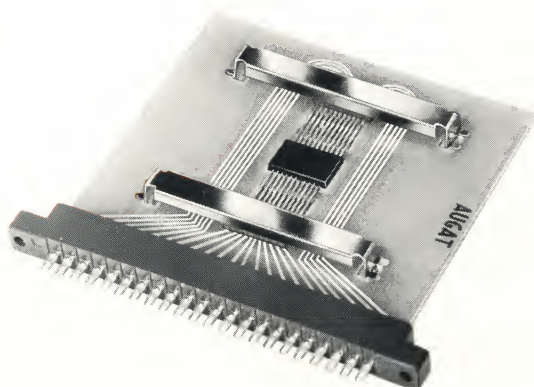
Insulating pressure pad — Silicone rubber

CONNECTOR — Diallyl phthalate with spring temper phosphor bronze, gold over silver plated contacts

refer to page 8 for Test Data

Tolerances unless otherwise specified: Decimals  $\pm .005$ , Fractions  $\pm \frac{1}{16}$

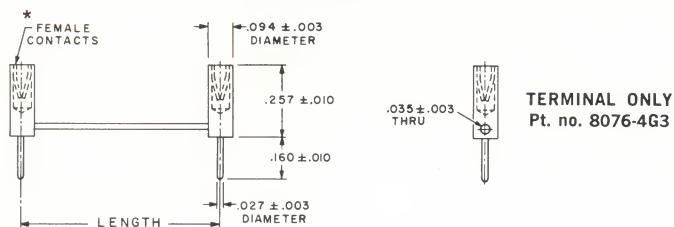
## CUSTOM DESIGNS to your specifications





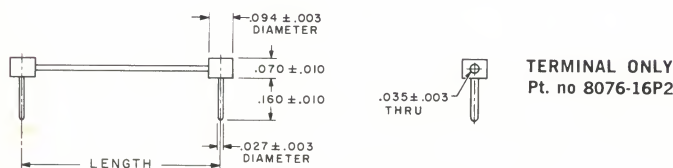
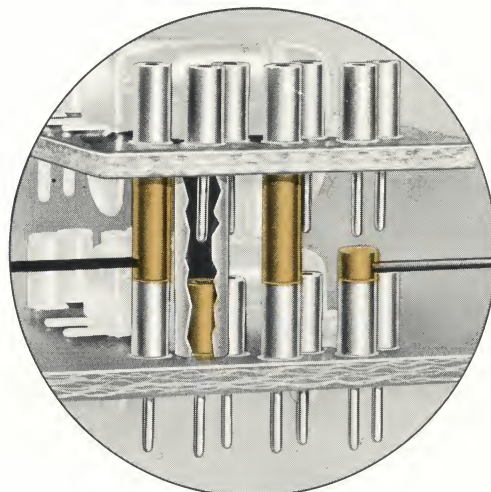
# ACCESSORIES for use with 8089-8076-8100 and 8095 SERIES

## JUMPER ASSEMBLIES



**FIG. 1 8076-12 SERIES**  
(accepts .020/.032 dia. pin)

Designed for horizontal interconnections — can be stacked for "Y" connections and bus combinations; also for combined vertical and horizontal connections.



**FIG. 2 8076-17 SERIES**

Provides single horizontal interconnections where thru electrical contact to board above is not required.

### MATERIALS — 8076-12 and 8076-17 SERIES

WIRE — #26 AWG, stranded copper, teflon coated

\* FEMALE CONTACT — Beryllium copper, gold over silver plated

TERMINAL SLEEVE — Brass, gold over silver plated

### 8076-12 and 8076-17 SERIES BASIC PART NUMBERS

8076-12 Series FIG. 1	8076-17 Series FIG. 2	Insulation Color
8076-12G1	8076-17G1	Black
8076-12G2	8076-17G2	Red
8076-12G3	8076-17G3	Blue
8076-12G4	8076-17G4	Green
8076-12G5	8076-17G5	Orange
8076-12G6	8076-17G6	Yellow
8076-12G7	8076-17G7	Brown
8076-12G8	8076-17G8	White, black stripe
8076-12G9	8076-17G9	White, red stripe
8076-12G10	8076-17G10	White, blue stripe
8076-12G11	8076-17G11	White, green stripe
8076-12G12	8076-17G12	White, orange stripe
8076-12G13	8076-17G13	White, yellow stripe
8076-12G14	8076-17G14	White, brown stripe

### PART NUMBER EXAMPLE:

**8076-12|G3|-2** (Blue color insulation, 2" long)

**8076-17|G6|-8** (Yellow color insulation, 8" long)

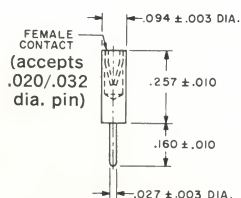
Series no.  
See Fig. 1 and 2

Dash no. (Indicates length in inches)

**MUST BE ADDED TO COMPLETE PART NUMBER**

Insulation  
Color  
SEE TABLE

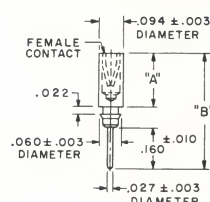
Lengths available:  
1" to 6" — increments of 1"  
8" to 20" — increments of 2"



**CONTACT ADAPTOR**  
Pt. no. 8076-4G2

Used where thru vertical connection is required between two boards — see illustration

**MATERIALS** ▶



**CONTACT ASSEMBLY**  
(self-mounting)  
(accepts .020/.032 dia. pin)

**Recommended mounting hole**  
#54 Drill (.055 dia. ref.)  
Board thickness  $\frac{1}{16}$  min.

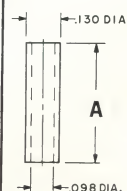
Part No.	$\pm .015$ A	$\pm .015$ B
8076-4G4	.187	.419
8076-4G5	.375	.607

May be installed at random locations to provide additional interconnecting points for accessories listed above

### Materials

Female contact — Beryllium copper, gold/silver plated

Terminal sleeve — Brass, gold over silver plated



**INSULATED SPACER**  
Material — Phenolic

Used as a supporting member where thru electrical connection is not required — see illustration

PART NO.	$\pm .010$ A
8076-26P1	.444
8095-4P1	.632

## MATERIALS

### 8089 and 8076 SERIES

PRINTED CIRCUIT BOARD —  $\frac{1}{16}$  thick glass epoxy, NEMA grade G-11, copper circuitry, gold over nickel plated

LEAD SEPARATOR — Diallyl phthalate

COVER — Spring temper stainless steel  
Insulating pressure pad — Silicone rubber

#### VERTICAL CONTACT ASSEMBLY

Female contact — Beryllium copper, gold over silver plated

Terminal sleeve — Brass, gold over silver plated

### 8100 and 8095 SERIES

PRINTED CIRCUIT BOARD —  $\frac{1}{16}$  thick glass epoxy, NEMA grade G-11, copper circuitry, gold over nickel plated

SPACER — Teflon

#### VERTICAL CONTACT ASSEMBLY

Female contact — Beryllium copper, gold over silver plated

Terminal sleeve — Brass, gold over silver plated

## TEST DATA

TEST	CONDITION	RESULT	APPLICABLE SERIES
SHOCK	100 g's per MIL-STD-202, method 202	No damage to socket or component	8075, 8076, 8095
VIBRATION	10 to 2000 cps @ 30 g's per MIL-STD-202, test condition D, method 204A		
THERMAL SHOCK	-65°C to +125°C per MIL-STD-202, test condition F, method 107	No deformation of plastic parts or other damage to assembly	
CAPACITANCE	Between adjacent conductors @ 1 Kc per MIL-STD-202, method 305	.8 pfd. max.	8089, 8076
		1.5 pfd. max.	8100, 8095, 8075
	Between opposite conductors @ 1 Kc per MIL-STD-202, method 305	.2 pfd. max.	8089, 8076
		.8 pfd. max.	8100, 8095
		.5 pfd. max.	8075
CONTACT RESISTANCE	Measured thru junction of Integrated Circuit lead and printed circuit board conductor @ 100 milliamps per MIL-STD-202, method 307	23 milliohms average value	8075
	Measured thru female contact and junction of Integrated Circuit lead where printed circuit board connections are made @ 100 milliamps per MIL-STD-202, method 307	45 milliohms average value	8089, 8076
	Measured thru female contact of terminal sleeve and female contact of pin circle	9 milliohms max.	8100, 8095

## 8076 SERIES BREADBOARD TRIAL KIT

#### Includes:

- 2 pcs. — 8076-1G3
- 1 pc. — 8076-10G1
- 14 pcs. — 8076-4G2
- 7 pcs. — 8076-12G6-3
- 7 pcs. — 8076-17G1-3
- 4 pcs. — 8076-26P1
- 1 pc. — 8076-18P1
- (Board separator key — facilitates separation of male and female contacts between stacked boards)

Part no. — 8076-14G1  
price — \$16.00 ea.

